

reaction products below the sintering temperature thereof.

36. The method of claim 35, wherein the alkali metal is Na, K or mixtures thereof and the alkaline earth metal is Mg, Ca, Ba or mixtures thereof.

37. A method of producing Ti powder from a source of $TiCl_4$ vapor, comprising introducing the $TiCl_4$ vapor within a continuum of liquid Na to produce Ti powder by a subsurface reaction and separating the Ti powder from the liquid Na.

38. The method of claim 37, wherein substantially all of the Ti powder has a particle diameter in the range of from about 1 to about 10 microns.

39. The method of claim 37, wherein the $TiCl_4$ vapor is introduced into a flowing stream of liquid Na by injection.

40. The method of claim 39, wherein the flowing stream of Na is present in excess over the stoichiometric quantity needed to react with the $TiCl_4$ vapor such that the Ti powder produced does not sinter.--

IN THE ABSTRACT:

Page 21, line 7, delete "the lesser of the boiling point of the";

line 8, delete "alkali or alkaline earth metal at atmospheric pressure or".

REMARKS

Reconsideration of this application is requested.

The applicants wish to thank the Examiner for his careful attention to the specification and all suggestions, save 1, have been included in the claims or the specification, as suggested by the Examiner. The only suggestion by the Examiner not adopted by the applicants is the suggestion that claim 2, line 2, which recites that the alkaline earth is barium is not supported by the specification. Because barium is an

alkaline earth metal, it is believed that the specification provides adequate support for the disclosure and no addition to the specification was made. If the Examiner is not convinced of this, please call the undersigned to discuss this matter.

Figure 3 of the drawing was objected to because of the use of the term "injection nozzle". This term has been inserted into the specification at page 11, line 12.

Furthermore, the drawings were objected to in that the specification did not describe items 11, 19 and 21 in Fig. 1, item 5 in Fig. 3 and item 30 in Fig. 4. These matters have been attended.

All matters pertaining to the drawings have been corrected either by amendment either to the drawing, in the case of reference numeral 5 in Fig. 3 or to the specification. It is now believed that the drawings are adequately described.

The Abstract has been amended in accordance with the Examiner's suggestion as has the Title of the Invention.

Referring to paragraph 4 of the Office Action, all matters indicated to be in need of correction have been corrected and it is believed that the specification is not objectionable.

With respect to the matters raised in paragraph 5, it is believed that the Examiner is incorrect with respect to the matter in paragraph 5a, but the matters raised in paragraphs 5b and 5c have been attended to.

The matters raised in paragraph 7 in the claims have been attended to with all corrections suggested by the Examiner being made.

Additional claims 21-40 are submitted herewith. It is believed that each of these claims is patentable in view of the references.

In claims 35-40, the concept of introducing a vapor into a continuum of liquid to provide a subsurface reaction is set forth. The basis for this appears in the specification at several places, in the sentence that bridges pages 7 and 8 and in the first full paragraph on page 13. It is believed that all the claims as now presented are patentable and the allowance thereof is requested.

A terminal disclaimer with respect to the parent application is enclosed herewith.

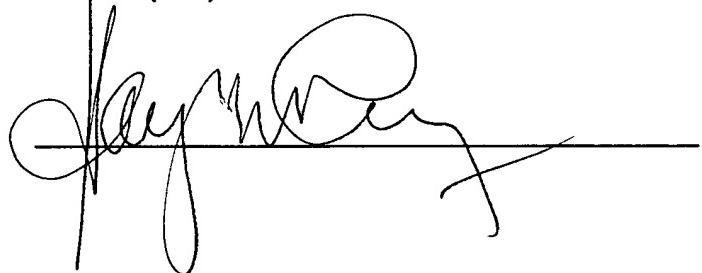
Two references cited in the corresponding PCT application are enclosed herewith, one being Australian application no. 43017/85 and the other being an EPO application no. 88306510.4. The Australian application teaches the mixture of a liquid halide and a liquid reducing metal. The reaction is not only between two liquids but also entails a surface control reaction unlike the present invention. The European patent application is directed to a process similar to the Kroll process previously discussed.

In view of the foregoing, it is respectfully suggested that all the claims of the present application are in condition for allowance and such action is solicited.

December 14, 1998

Respectfully submitted,

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A handwritten signature in black ink, appearing to read "Harry M. Levy", is written over a horizontal line. The signature is fluid and cursive, with a large loop on the left and a smaller loop on the right.

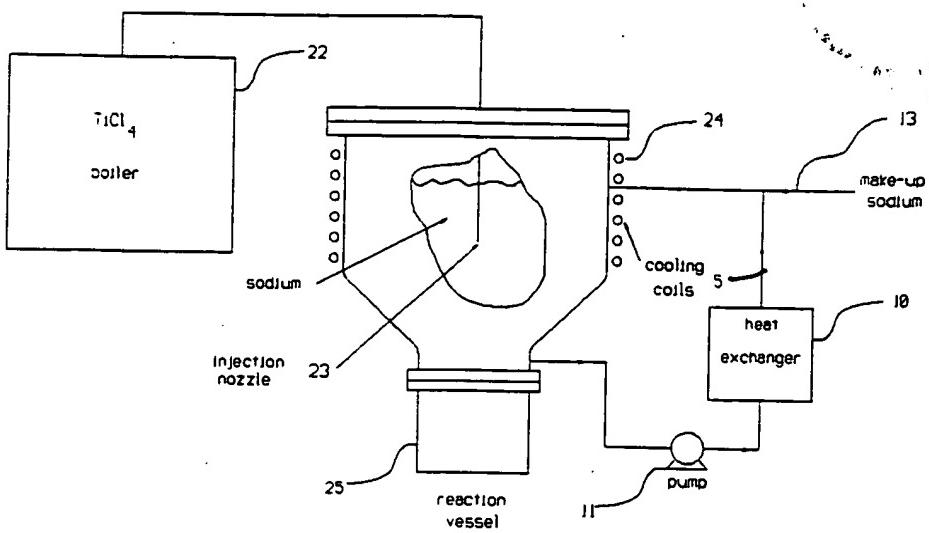


Figure 3.